

PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR MANAGEMENT

**Iron Dynamics, Inc.
4500 County Road 59
Butler, Indiana 46721**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 033-12756-00076	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: December 06, 2000

Minor Source Modification: 033-13911	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: June 13, 2001

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary iron manufacturing plant.

Responsible Official: Mark Millett
Source Address: 4500 County Road 59, Butler, IN 46721
Mailing Address: 4500 County Road 59, Butler, IN 46721
Phone Number: (219) 868-8431
SIC Code: 3312
County Location: Dekalb
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD;
Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

Ten (10) natural gas-fired low-NO_x burners, with a combined heat input of 80 MMBtu per hour, in the existing rotary hearth furnace constructed and operated under Construction Permit CP 033-8091-00043. The modified rotary hearth furnace will process iron ore and coal to produce a maximum ninety-six (96) tons per hour of direct reduced iron and will have a heat input of 376 MMBtu per hour.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [40CFR 124]

Pursuant to 40 CFR 124.15, 40 CFR 124.19, and 40 CFR 124.20, the effective date of this permit will be thirty-three (33) days after issuance.

B.4 Revocation of Permits [326 IAC 2-2-8]

Pursuant to 326 IAC 2-2-8(a)(1), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of eighteen (18) months or more.

B.5 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

Northern Regional Office:
Telephone Number: 219-245-4870

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
 - (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

- (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

SECTION C

GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit. The PMP does not require the certification by a "Responsible Official" as defined by 326 IAC 2-7-1 (34).
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by a "Responsible Official" as defined by 326 IAC 2-7-1 (34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3)

years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

(b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this approval:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this approval, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the

provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall notify IDEM, OAM not later than fourteen (14) days prior to the actual test date.

- (b) All test reports must be received by IDEM, OAM not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this approval. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.9 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this approval until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.10 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.11 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this approval;
 - (3) The Compliance Monitoring Requirements in Section D of this approval;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this approval; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this approval by the Permittee and maintained on site, and is comprised of:
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this approval; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this approval, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the approval unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

- (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

**C.12 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.13 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut

down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.

- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.14 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this approval;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are

not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.15 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (c) Unless otherwise specified in this approval, any quarterly report shall be submitted not later than thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

Ten (10) natural gas-fired low-NO_x burners, with a combined heat input of 80 MMBtu per hour, in the existing rotary hearth furnace constructed and operated under Construction Permit CP 033-8091-00043. The modified rotary hearth furnace will process iron ore and coal to produce a maximum ninety-six (96) tons per hour of direct reduced iron and will have a heat input of 376 MMBtu per hour. Existing pollutant controls include: an afterburner for CO and VOC, lime injection into the gas stream for SO₂, selective non-catalytic reduction for NO_x, a baghouse with pulse jet fiberglass filter for PM/PM-10 and calcium sulfate (formed during reaction of lime and SO₂). All emissions are exhausted through Stack 40.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the PM/PM10 emissions from the rotary hearth furnace baghouse shall not exceed an air flow rate design of 310,000 dscfm (353,000 acfm) and 0.0052 grains per dscf through stack 40, one hundred (100) feet above ground level. The total per hour emissions shall not exceed 13.4 pounds.

D.1.2 Opacity Limitation - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the visible emissions discharged into the atmosphere from rotary hearth furnace shall be limited to three percent (3%) opacity determined by a six (6) minute average (24 reading taken in accordance with EPA Method 9, Appendix A) pursuant to 326 IAC 5-1-4.

D.1.3 Nitrogen Oxides (NO_x) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the nitrogen oxide(s) emissions from the rotary hearth furnace shall be controlled by the use of low-NO_x natural gas-fired burners and a selective non-catalytic reduction unit. The total emissions per hour shall not exceed 120 pounds.

D.1.4 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the carbon monoxide emissions from the rotary hearth furnace shall be controlled by afterburner and operated at a temperature exceeding two thousand six hundred (2,600) °F and emissions shall not exceed 100 ppm, 114,519 ug/m³. The total emissions per hour shall not exceed 146.8 pounds.

D.1.5 Volatile Organic Compounds (VOC) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the volatile organic compound emissions from the rotary hearth furnace shall be controlled by an afterburner and operated at a temperature exceeding two thousand six hundred (2,600) °F and emissions shall not exceed 0.06 pounds per ton of material charged into the furnace. The total emissions shall not exceed 6.23 pounds per hour.

D.1.6 Sulfur Dioxide (SO₂) - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the sulfur dioxide emissions from the rotary hearth furnace shall be controlled by lime injection and shall not exceed 0.75 pounds per ton of material charged into the furnace. The total emissions per hour shall not exceed 78 pounds.

D.1.7 Lead Emissions - Best Available Control Technology [326 IAC 2-2-3]

Pursuant to CP-033-8091-00043, issued on June 25, 1997, lead emissions from the rotary hearth furnace shall not exceed 0.0021 pounds per hour.

D.1.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Compliance Determination Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.9 Particulate Matter (PM)

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the baghouse for PM control shall be in operation and control emissions from the rotary hearth furnace at all times the rotary hearth furnace is in operation.

D.1.10 Nitrogen Oxides (NO_x)

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the selective non-catalytic reduction unit for NO_x control shall be in operation and control emissions from the rotary hearth furnace at all times the rotary hearth furnace is in operation.

D.1.11 Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the afterburner for control of carbon monoxide and volatile organic compounds shall be in operation and control emissions from the rotary hearth furnace at all times the rotary hearth furnace is in operation.

D.1.12 Sulfur Dioxide (SO₂)

Pursuant to CP-033-8091-00043, issued on June 25, 1997, the lime injection unit for sulfur dioxide control shall be in operation and control emissions from the rotary hearth furnace at all times the rotary hearth furnace is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.13 Continuous Emission Rate Monitoring Requirement [326 IAC 3-5]

- (e) Pursuant to 326 IAC 3-5-1(d), the Permittee shall install, calibrate, certify, operate, and maintain a continuous monitoring system for measuring NO_x, CO, and SO₂ emissions rates in pounds per hour from the rotary hearth furnace stack (identified as stack 40) in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3.
- (b) The Permittee shall submit to IDEM, OAM, within ninety (90) days after monitor installation, a complete written continuous monitoring standard operating procedure (SOP), in accordance with the requirements of 326 IAC 3-5-4.
- (c) The Permittee shall record the output of the system and shall perform the required record keeping, pursuant to 326 IAC 3-5-6, and reporting, pursuant to 326 IAC 3-5-7.

Compliance with this condition shall determine continuous compliance with the NO_x, CO, and SO₂ emission limits under operation conditions D.1.3, D.1.4, and D.1.6, respectively.

D.1.14 Parametric Monitoring

The permittee shall record the total static pressure drop across the baghouse used in conjunction with the rotary hearth furnace, at least once per shift when the process is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 4.0 and 10.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.1.15 Baghouse Inspections

An inspection shall be performed each calendar quarter or during scheduled outages of all bags controlling the rotary hearth furnace.

D.1.16 Broken or Failed Bag Detection

In the event that bag failure has been observed the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps the timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.17 Record Keeping Requirements

- (a) To document compliance with Condition D.1.13, the Permittee shall maintain records of required under 326 IAC 3-5-6 at the source in a manner such that they may be inspected by IDEM, OAM or U.S. EPA, if requested.
- (b) To document compliance with Conditions D.1.15, D.1.16 and D.1.17, the Permittee shall maintain the following:
 - (1) Once per shift records of the following operational parameters during normal operation:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency or differential pressure.
 - (2) Documentation of all response steps implemented, per event.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.18 Reporting Requirements

There are no new reporting requirements.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**PART 70 SOURCE MODIFICATION
CERTIFICATION**

Source Name: Iron Dynamics, Inc.
Source Address: 4500 County Road 59, Butler, Indiana 46721
Mailing Address: 4500 County Road 59, Butler, Indiana 46721
Source Modification No.: 033-12756-00076

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature: _____

Printed Name: _____

Title/Position: _____

Date: _____

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Iron Dynamics, Inc.
Source Location:	4500 County Road 59, Bulter, IN 46721
County:	Dekalb
SIC Code:	3312
Operation Permit No.:	T033-12614-00076
Operation Permit Issuance Date:	Yet to be issued
Minor Source Modification No.:	033-13911-00076
Permit Reviewer:	Gurinder Saini

On December 29, 2000, Iron Dynamics, Inc. submitted a letter to the Office of Environmental Adjudication, appealing for an administrative review. This review was requested for the Minor Source Modification Permit 033-12756-00076 issued on December 06, 2000, by the Office of Air Quality (OAQ) for construction and operation of ten additional burners to their existing rotary hearth furnace. These burners were added in the existing rotary hearth furnace (RHF) constructed and operated under Construction Permit CP 033-8091-00043. The modified rotary hearth furnace will process iron ore and coal to produce a maximum ninety-six (96) tons per hour of direct reduced iron and will have a heat input of 376 MMBtu per hour. Existing pollution controls include: an afterburner for CO and VOC, lime injection into the gas stream for SO₂, selective non-catalytic reduction for NO_x, a baghouse with pulse jet fiberglass filter for PM/PM-10 and calcium sulfate (formed during reaction of lime and SO₂). All emissions are exhausted through Stack 40. Iron Dynamics, Inc.'s Part 70 permit application is currently under review by the OAQ, IDEM.

Permit Changes

As a result of the resolution of the appeal, changes to the permit language are described in the following paragraphs. The OAQ response to the appealed items and any permit changes it requires follows under resolutions. Due to a recent change of name of the Office of Air Management to Office of Air Quality, the OAM and OAQ are used inter-changeably throughout this document. The entire permit document is revised to incorporate these changes in the permit. (the language deleted is shown in ~~strikeout~~ and added is shown in **bold**):

Item 1:

Change the phone number for the contact to the Safety and Environmental Coordinator at IDI.

Resolution 1:

This change is implemented in the condition A.1 as follows:

Phone Number: ~~(219) 868-8485~~ **(219) 868-8431**

Item 2:

The Section D.1 of the Minor Source Modification MSM 033-12756-00076, addresses conditions related to entire RHF unit, whereas, the TSD and Section A of the permit refers to only 10 new burners being added to this unit. The Company wants to clarify if the requirements under this permit supercede the requirements of the Construction Permit CP033-8091-00043 previously issued to IDI for the operation of the RHF.

Resolution 2:

This permit does not supercede the previous Construction Permit CP033-8091-00043. The conditions in permit MSM 033-12756-00076 are in addition to the conditions in the Construction Permit. If there is any duplicity of the applicable conditions, the conditions contained in the MSM 033-12756-00076 supercedes the Construction Permit CP033-8091-00043.

No change is made to any permit conditions.

Item 3:

IDEM previously agreed to change the condition C.1 during the Part 70 Operating Permit, Steel Industry Work Group as follows:

- (b) One (1) certification shall be included, ~~on~~ **using** the attached Certification Form, with each submittal **requiring certification**.

Resolution 3:

The OAQ, IDEM has agreed to make this change. The condition C.1 is modified as shown above.

Item 4:

IDEM previously agreed to change the condition C.2 (a) during the Part 70 Operating Permit, Steel Industry Work Group as follows:

If due to circumstances beyond ~~it's~~ **the Permittee's** control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

The following should be added to paragraph (c) to make it consistent with the language presented by the IDEM during the Steel Industry Work Group sessions:

- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation. **The PMP does not require the certification by a "Responsible Official" as defined by 326 IAC 2-7-1 (34).**

The following condition (d) should be added to the condition C.2 to make it consistent with the language presented by the IDEM during the Steel Industry Work Group sessions:

- (d) **Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.**

Resolution 4:

The OAQ, IDEM has agreed to make these changes. The condition C.2 is modified as shown above.

Item 5:

The following changes are necessary to paragraph (a) of the condition C.7 to make it consistent with 326 IAC 3-6-2 (h).

- (a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall ~~submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date~~ **notify IDEM, OAM not later than fourteen (14) days prior to the actual test date.**

- (b) All test reports must be received by IDEM, OAM ~~within~~ **not later than** forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation ~~within~~ **not later than** five (5) days prior to the end of the initial forty-five (45) day period.

Resolution 5:

The OAQ, IDEM has agreed to make these changes. The condition C.7 is modified as shown above.

Item 6:

The condition C.9 of the permit cites 326 IAC 2-7-5 (3) (A)(iii) that does not apply to this condition. Therefore, this condition should be deleted.

Resolution 6:

This condition sets requirements for installation and operation of the Emissions Monitoring equipment for determining compliance with the permit limits. The cited rule allows the OAQ to set requirements concerning use and maintenance of the monitoring equipment. The condition D.1.13 in the Section D.1 of the MSM 033-12756-00076 requires the Continuous Emission Rate Monitoring for measuring NO_x, CO, and SO₂ emissions rates in pounds per hour from the RHF stack (identified as stack 40). Therefore, the OAQ has decided to set requirements mentioned in condition C.9 for all Sources that require monitoring equipment installation. No change is required in any permit condition.

Item 7:

The IDEM previously agreed to change the condition C.11 (c) (4) during the Part 70 Operating Permit sessions with Steel Industry Work Group as follows:

- (4) The process has already returned **or is returning** to operating within "normal" parameters and no response steps are required.

Resolution 7:

The OAQ, IDEM has agreed to make these changes. The condition C.11 (c) (4) is modified as shown above.

Item 8:

The language in condition C.15 (c) should be changed to make it consistent with the other conditions as follows:

- (c) Unless otherwise specified in this approval, any quarterly report shall be submitted ~~within~~ **not later than** thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Resolution 8:

The OAQ, IDEM has agreed to make these changes. The condition C.15 (c) is modified as shown above.

Item 9:

The condition D.1.2 requires that opacity be determined by a six minute average in accordance with EPA Method 9 procedures. However, condition D.1.14 and the TSD require monitoring Visible Emission notations once per shift. The Permittee has expressed a concern that the two conditions are conflicting and require a clarification.

Resolution 9:

The OAQ, IDEM has determined that the Permittee is not required to monitor Visible Emissions Notations. The condition D.1.2 requiring opacity monitoring using EPA Method 9 is more stringent. Therefore, the condition D.1.14 is deleted as follows:

D.1.14 Visible Emissions Notations

-
- ~~(a) Visible emissions notations of the rotary hearth furnace stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~
-
- ~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~
-
- ~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~
-
- ~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~
-
- ~~(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.~~

The succeeding conditions in the permit are renumbered accordingly. For sake of clarity, in the following discussion this TSD refers to the condition numbers as in the original permit. The revised permit document will contain the renumbered conditions.

Item 10:

The permit condition D.1.8 requires the Permittee to submit a Preventive Maintenance Plan (PMP) in accordance with the Section B- Preventive Maintenance Plan. The requirement for PMP is not

mentioned in the Section B and is instead located in the Section C. Therefore, the condition D.1.8 should be changed to reflect correct section as follows:

D.1.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section **BC** - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Resolution 10:

The OAQ, IDEM has agreed to make these changes. The condition D.1.8 is modified as shown above.

Item 11:

The condition D.1.15 requires the Permittee to maintain a pressure drop between 3 to 6 inches of water or as determined by the latest stack test across the baghouse. The original construction permit allowed pressure drop of 6 to 8 inches of water across the baghouse. In the Part 70 Operating Permit application Permittee has requested for a pressure drop range of 4 to 10 inches of water across the baghouse. The Permittee has requested to modify this condition to accommodate pressure drop range of 4 to 10 inches of water across the baghouse. The condition D.1.15 should be changed as follows:

D.1.15 Parametric Monitoring

The permittee shall record the total static pressure drop across the baghouse used in conjunction with the rotary hearth furnace, at least once per shift when the process is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of ~~3.0 and 6.0~~ **4.0 and 10.0** inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

Resolution 11:

The OAQ, IDEM has agreed to make these changes. The condition D.1.15 is modified as shown above.

Item 12:

The Permittee has requested to modify condition D.1.16 in the MSM 033-12756-00076. This condition sets requirement incase, the baghouse exhaust is vented inside the building. The Permittee has contended that due to the nature of the baghouse exhaust, containing high carbon monoxide concentration, it will be fatal for the plant workers if the exhaust is vented inside the building. Therefore the condition D.1.16 should be modified as follows:

D.1.16 Baghouse Inspections

An inspection shall be performed each calendar quarter **or during scheduled outages** of all bags controlling the rotary hearth furnace ~~when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.~~

Resolution 12:

The OAQ, IDEM has agreed to make these changes. The condition D.1.16 is modified as shown above.

Item 13:

The condition D.1.17 (a) refers to emergency provision in "Section B- Emergency Provisions", but neither the Section B nor Section C contain this provision. The Permittee has requested to clarify this condition.

The condition D.1.17 (b) is related to single compartment baghouse. The RHF is not equipped with a single compartment baghouse and therefore this condition should be deleted.

Resolution 13:

The OAQ, IDEM has agreed to make following changes:

The following condition is added to the section B of the permit:

B.5 Emergency Provisions [326 IAC 2-7-16]

(a) **An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.**

(b) **An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:**

- (1) **An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;**
- (2) **The permitted facility was at the time being properly operated;**
- (3) **During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;**
- (4) **For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;**

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

Northern Regional Office:

Telephone Number: 219-245-4870

- (5) **For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:**

**Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015**

Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;**
- (B) Any steps taken to mitigate the emissions; and**
- (C) Corrective actions taken.**

The notification which shall be submitted by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.**
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.**
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.**
- (e) IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.**
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.**
- (g) Operations may continue during an emergency only if the following conditions are met:**
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.**
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:**
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and**
 - (B) Continued operation of the facilities is necessary to prevent**

imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

The condition D.1.17 is modified as follows:

D.1.17 Broken or Failed Bag Detection

In the event that bag failure has been observed:-

- ~~_____~~ (a) ~~T, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps the timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~
- ~~_____~~ (b) ~~For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

Item 14:

The paragraphs (a), (b) and (c) in the condition D.1.18 contain references to other conditions in this section. The Permittee has stated that the references are incorrect and therefore needs to be corrected. The concern regarding venting baghouse indoors mentioned in Item 12 is applicable to this condition as well. The condition D.1.18 should be changed as follows:

D.1.18 Record Keeping Requirements

- ~~_____~~ (a) ~~To document compliance with Condition D.1.14~~ **D.1.13**, the Permittee shall maintain records of required under 326 IAC 3-5-6 at the source in a manner such that they may be inspected by IDEM, OAM or U.S. EPA, if requested.
- ~~_____~~ (b) ~~To document compliance with Condition D.1.15, the Permittee shall maintain records of visible emission notations of the rotary hearth furnace stack once per shift.~~
- ~~(c)~~ **(b)** To document compliance with Conditions ~~D.1.17, D.1.18, and D.1.19~~ **D.1.15, D.1.16 and D.1.17**, the Permittee shall maintain the following:
 - (1) Once per shift records of the following operational parameters during normal operation ~~when venting to the atmosphere~~:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure.
 - (2) Documentation of all response steps implemented, per event.

- (3) Operation and preventive maintenance logs, including work purchase orders, shall be maintained.
- (4) Quality Assurance/Quality Control (QA/QC) procedures.
- (5) Operator standard operating procedures (SOP).
- (6) Manufacturer's specifications or its equivalent.
- (7) Equipment "troubleshooting" contingency plan.
- ~~(8) Documentation of the dates vents are redirected.~~

~~(d)~~ (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Resolution 14:

The OAQ, IDEM has agreed to make these changes. The condition D.1.18 is modified as shown above.

Item 15:

The Permittee has further requested clarifications related to sub-conditions in condition D.1.18 (c) above as follows:

- 1. The condition D.1.18 (c)(1) (b) required record keeping of frequency and differential pressure for the cleaning cycles. IDI has requested that the requirement for differential pressure be removed.
- 2. The condition D.1.18 (c) (4) requires the Permittee to maintain QA/QC procedures. The Permittee contends that the QA/QC is provided under the Standard Operating Procedure.
- 3. Further condition (c) (7) requires "Equipment troubleshooting contingency plan" to be prepared by the Permittee. The Permittee has requested for clarification if this plan is same as Compliance Response Plan to be submitted by the Permittee.

Resolution 15:

The OAQ, IDEM provide following clarifications in this regard:

- 1. The condition D.1.18 (c)(1) (B) has been modified as follows:
 - (B) Cleaning cycle: frequency ~~and~~ or differential pressure.
- 2 and 3. On further review the OAQ, IDEM has decided to remove condition D.1.18 (c) (3) through (8). The final version of condition D.1.18 is as follows:

D.1.18 Record Keeping Requirements

-
- (a) To document compliance with Condition ~~D.1.14~~ **D.1.13**, the Permittee shall maintain records of required under 326 IAC 3-5-6 at the source in a manner such that they may be inspected by IDEM, OAM or U.S. EPA, if requested.
 - ~~(b) To document compliance with Condition D.1.15, the Permittee shall maintain records of visible emission notations of the rotary hearth furnace stack once per shift.~~
 - ~~(c)~~ (b) To document compliance with Conditions ~~D.1.17, D.1.18, and D.1.19~~ **D.1.15, D.1.16 and D.1.17**, the Permittee shall maintain the following:

- (1) Once per shift records of the following operational parameters during normal operation ~~when venting to the atmosphere:~~
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency ~~and or~~ differential pressure.
 - (2) Documentation of all response steps implemented, per event.
 - ~~_____ (3) Operation and preventive maintenance logs, including work purchase orders, shall be maintained.~~
 - ~~_____ (4) Quality Assurance/Quality Control (QA/QC) procedures.~~
 - ~~_____ (5) Operator standard operating procedures (SOP).~~
 - ~~_____ (6) Manufacturer's specifications or its equivalent.~~
 - ~~_____ (7) Equipment "troubleshooting" contingency plan.~~
 - ~~_____ (8) Documentation of the dates vents are redirected.~~
- ~~(d)~~(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Item 16:

The Permittee has made following observations/comments related to reporting requirements under D.1.19:

1. Clarify the measurement of opacity versus Visible Emission notations. The Permittee has stated that the Method 9 does not give comparable readings with Visible Emission notations.
2. There is no direct emissions monitoring performed for PM, VOC and Pb. Therefore, a quarterly report will have no information for these pollutants.
3. The Permittee is not clear as to what constitutes a Preventive Maintenance Plan.
4. The Permittee will be able to report NO_x, CO and SO₂ emissions that are measured through the CEMs. The forms provided along with permits is not clear as to what is to be reported.
5. The Permittee is not clear about "12 month total" column in the forms. Depending upon what is reported in Column 1 and Column 2 a total may not be possible.
6. The reporting forms contain "Deviation has been reported on:" requirement. The Permittee is not aware if every deviation has to be reported and seek clarification in this regard.

Resolution 16:

The OAQ, IDEM has following clarifications regarding above observations/comments made by the Permittee:

1. The visible emissions notation condition has been removed from the permit
2. The reporting forms on page 18 to 24 of the MSM 033-12756-00076 are deleted as shown on the following pages.
3. The condition C.2 of the permit contains detail of the Preventive Maintenance Plan.
4. The reporting forms have been deleted.
5. The reporting forms have been deleted.
6. The reporting forms have been deleted.

The condition D.1.19 is modified as follows:

D.1.19 Reporting Requirements

~~A quarterly summary of the information to document compliance with Conditions D.1.1 through D.1.8 shall be submitted to the address listed in Section C – General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).~~

There are no new reporting requirements.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: _____ Iron Dynamics, Inc. _____
Source Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Mailing Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Source Modification No.: _____ 033-12756-00076 _____
Facility: _____ Rotary Hearth Furnace _____
Parameter: _____ Opacity and Fugitive Particulate Matter _____
Limit: _____ 3% Opacity _____

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

_____ 9 _____ No deviation occurred in this quarter.

_____ 9 _____ Deviation/s occurred in this quarter.

_____ Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: _____ Iron Dynamics, Inc. _____
Source Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Mailing Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Source Modification No.: _____ 033-12756-00076 _____
Facility: _____ Rotary Hearth Furnace _____
Parameter: _____ PM/PM10 _____
Limit: _____ 13.4 lb/hr Total Emissions, 0.0052 grains per dscf _____

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

_____ 9 _____ No deviation occurred in this quarter.

_____ 9 _____ Deviation/s occurred in this quarter.

_____ Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: _____ Iron Dynamics, Inc. _____
Source Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Mailing Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Source Modification No.: _____ 033-12756-00076 _____
Facility: _____ Rotary Hearth Furnace _____
Parameter: _____ NO_x _____
Limit: _____ 120 lb/hr Total Emissions _____

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

_____ 9 _____ No deviation occurred in this quarter.

_____ 9 _____ Deviation/s occurred in this quarter.

_____ Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: _____ Iron Dynamics, Inc. _____
Source Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Mailing Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Source Modification No.: _____ 033-12756-00076 _____
Facility: _____ Rotary Hearth Furnace _____
Parameter: _____ VOC _____
Limit: _____ 0.06 lb/hr of material charged to furnace and total emissions of
6.23 lb/hr _____

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

_____ 9 _____ No deviation occurred in this quarter.

_____ 9 _____ Deviation/s occurred in this quarter.

_____ Deviation has been reported on: _____

_____ Submitted by: _____

_____ Title / Position: _____

_____ Signature: _____

_____ Date: _____

_____ Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: _____ Iron Dynamics, Inc. _____
Source Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Mailing Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Source Modification No.: _____ 033-12756-00076 _____
Facility: _____ Rotary Hearth Furnace _____
Parameter: _____ CO _____
Limit: _____ 100 ppm (114, 519 mg/m³ and total emissions of 146.8lb/hr _____

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

_____ 9 _____ No deviation occurred in this quarter.

_____ 9 _____ Deviation/s occurred in this quarter.

_____ Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: _____ Iron Dynamics, Inc. _____
Source Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Mailing Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Source Modification No.: _____ 033-12756-00076 _____
Facility: _____ Rotary Hearth Furnace _____
Parameter: _____ PM/PM10 _____
Limit: _____ 0.0052 grains per dscf and 13.4 lb/hr total emissions _____

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

_____ 9 _____ No deviation occurred in this quarter.

_____ 9 _____ Deviation/s occurred in this quarter.

_____ Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: _____ Iron Dynamics, Inc. _____
Source Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Mailing Address: _____ 4500 County Road 59, Butler, Indiana 46721 _____
Source Modification No.: _____ 033-12756-00076 _____
Facility: _____ Rotary Hearth Furnace _____
Parameter: _____ SO₂ _____
Limit: _____ 0.75 lb per hour of material charged into the furnace and total
emissions of 78 lb/hour _____

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

_____ 9 _____ No deviation occurred in this quarter.

_____ 9 _____ Deviation/s occurred in this quarter.

_____ Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 14, 2001.

Conclusion

This source modification shall be subject to the conditions of the attached Source Modification 033-13911-00076.